REPORT

OF THE

CANADIAN ARCTIC EXPEDITION 1913-18

VOLUME V: BOTANY

PART A: VASCULAR PLANTS

By JAMES M. MACOUN and THEO. HOLM

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OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1921

Issued Oct. 14, 1921.

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Report of the Canadian Arctic Expedition, 1913-18.

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Introduction.

On the return of the expedition, the late Mr. James M. Macoun, C.M.G., F.L.S., Botanist in the Geological Survey and Chief of its Biological Division, undertook to prepare the report on the botanical collections. Mr. Macoun determined nearly all of the specimens collected, but in order to make the report as free from errors as possible, he submitted a number of specimens of critical groups and species to specialists.

Thus, my late friend and myself determined in conjunction the Cryptogams, the Monocotyledons, and many of the Dicotyledons except the Salices and some of the Gamopetalæ; but since some of the Gramineæ contained difficult types, these were sent to Professor A. S. Hitchcock who kindly examined them and furnished the names; moreover the Salices were determined by Dr. C. R. Ball and Dr. Camillo Schneider, who have made a special study of this genus; Dr. J. M. Greenman has kindly identified the species of *Senecio*.

At the time of the death of Mr. James M. Macoun in January, 1920, the report was unfinished, and on the recommendation of the late Professor John Macoun, and the Arctic Biological Committee, the undersigned was asked to complete the determination of the vascular plants collected and to prepare a report for publication.

All the mounted and unmounted material of the vascular plants was then sent to me; thus I had a better opportunity of determining the collection than from the single specimens previously sent to me for identification. At the suggestion of Dr. R. M. Anderson three other collections were included, viz., one by the late Rev. H. Girling from Clifton point, on the south side of Amundsen gulf, about 125 miles west of Bernard harbour, in 1916; a second collection made by the Rev. Isaac O. Stringer, now Bishop of the Yukon, from the Mackenzie delta and Herschel island; and a third collection, made by Captain Joseph F. Bernard of the schooner *Teddy Bear*, who recently returned after spending four years on a trading voyage to the Coronation gulf region. These specimens collected by Captain Bernard are mostly from Taylor island, Victoria strait, off the southeastern end of Victoria island, 69°15′ north and 102° west. Taylor island is right across the strait from King William island; some other specimens are from De Haven point, Victoria island, a little south of Taylor island, about 69° north 102° west, and a few others from the south side of Victoria island. These collections I have thus included in the enumeration, and they constitute a valuable addition to the ones brought home by the expedition.

As may be seen from the list, the vegetation on the north coast has many species in common with the islands of the American Arctic archipelago, with Greenland, and with Alaska; and naturally several of these species have also been reported from much farther south, notably from the Rocky mountains and the Hudson bay region.

The accompanying plates illustrate some of these species, and I have selected such as have not been figured before, or species of which figures are published in works not readily accessible; in some few cases I have figured the plants in order to show their habit in these high northern regions.

Finally I wish to state that in preparing this list I have conscientiously followed the principles with regard to the nomenclature and limitation of species which I know would be in conformity with the views of my late friend James Macoun, as they are with my own.

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The study of this arctic collection has been very interesting to me, and I wish to express my gratitude to the Director of the Victoria Memorial Museum, Dr. Wm. McInnes, for his kindness in entrusting me with this work.

I also wish to tender my thanks to Dr. R. M. Anderson, the chief of the Southern Party of the expedition, and general editor of reports for the Arctic Biological Committee, for much information given me with regard to the preparation of the botanical reports.

THEO. HOLM.

CLINTON, MARYLAND, U.S.A.,
November 15, 1920.

The Vascular Plants of the Arctic Coast of America West of the 100th Meridian

Collected by the Canadian Arctic Expedition 1913-18

By James M. Macoun, C.M.G. and Theo. Holm, Ph.D.

(With 10 plate drawings, and 6 photographs)

The localities where the plants were collected (arranged in order from west to east) are as follows[1]:—

Alaska.

1. Spy island (Jones islands). Long. 149° 40′ W., lat. 70° 33′ N.

2. Camden bay. About 70° N., and extending from Flaxman island, 145° 50′ W. to about Barter island, 143° 48′ W. Mr. Johansen's collecting was practically all done between Collinson point, 144° 49′ 47″, and Konganevik, about 10 miles west of Collinson point (except collections on Sadlerochit river, which flows into Camden bay).

3. Collinson point. Long. 144° 49′ 47″ W., lat. 69° 59′ N.

4. Sadlerochit river. Mouth of river. Long. 140° 30′ W., lat. 70° N.

5. Hulahula river, foothills of Endicott range, about 45 miles southwest of Barter island.

6. Barter island. Long. 143° 45′ W., lat. 70° 07′ N.

7. Martin point. Long. 143° W., lat. 70° 08′ N.

8. Icy reef. Long. 141° 25′ W., lat. 69° 50′ N.

9. Demarcation point. Long. 141° 12′ 10″ W., lat. 69° 41′ N.

Yukon Territory.

10. Herschel island. Long. 138° 54′ W., lat. 69° 34′ N.

11. Shingle point. Long. 137° 12′ W., lat. 69° N.

Northwest Territories.

12. Mackenzie river delta. (From Shingle point, or Tent island, long. 136° 16′ W., to Toker point, about long. 132° 30′ W., lat. 67° 45′ to 69° 45′ N.)

13. Warren point. Long. 131° 35′ W., lat. 69° 45′ N.

14. Cape Bathurst. Long. 128° 05′ W., lat. 70° 35′ N.

15. Croker river, Amundsen gulf. Long. 118° 45′ W., lat. 69° N.

16. Clifton point, east of Croker river. Long. 118° W., lat. 69° 13′ N.

17. Young point. Long. 116° 52′ W., lat. 68° 55′ N.

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[1]See Map of Western Arctic Coast of America, fig. 1, p. 25A.

18. Cockburn point, Dolphin and Union strait. Nearly 115° W., and Bernard harbour, Dolphin and Union strait, 114° 50′ 27″ W., lat. 68° 47′ N. (Considered as one locality; 1914 specimens were referred to Cockburn point as the nearest geographical point before the harbour was named.)

19. Chantry island, north and east of Bernard harbour. About long. 114° 50′ W., lat. 68° 47′ N.

20. Cape Krusenstern, west end of Coronation gulf. Long. 113° 55′ W., lat. 68° 28′ N.

21. Coppermine river (mouth). Long. 115° 30′ W., lat. 67° 47′ N.

22. Tree river (Port Epworth), Coronation gulf. Long. 111° 59′ W., lat. 67° 46′ N.

23. Grays bay, south side of Coronation gulf. Long. about 111° W., lat. 67° 50′ N.

24. Sound between Richardson island and the south coast of Victoria island. About long. 110° to 111° W., lat. 68° 35′ N.

25. Wollaston land. Long. between about 110° and 117° W., lat. 68° 30′ and 70° N. The old name for the southwest part of Victoria island, Victoria land being the southeast corner, and Prince Albert land the west part;.now all officially designated as Victoria island.

26. Cape Barrow. Long. 110° 09′ W., lat. 68° 01′ N. (Considered as the western limit, between Bathurst inlet and Coronation gulf.)

27. Detention harbour, Bathurst inlet. Long. 110° W., lat. 67° 55′ N.

28. Kater point, Bathurst inlet. Long. 109° 45′ W., lat. 67° 45′ N.

29. Arctic sound, Bathurst inlet. Long. about 108° W., lat. 67° 20′ N.

30. Hood river, near mouth. Arctic sound. Long. 108° 56′ W., lat. 67° 26′ N.

31. Kanuyuk island, Bathurst inlet. Long. about 108° W., lat. 67° 24′ N.

32. Findlay island, district of Franklin. Northeast of Melville island. Between long. 106° and 107° W., and lat. 77° and 77° 50′ N.

33. Dubawnt river, Mackenzie district. Long. 103° W., lat. 62° 40′ N.

34. Anderson bay, southeastern Victoria island. About long. 102° W., lat. 69° N.

35. DeHaven point, near southeast corner of Victoria island. About long. 102° W., lat. 69° N.

36. Taylor island, Victoria strait, off southeastern end of Victoria island, about long. 102° W., lat. 69° 15′ N.

When no name of the collector is given, Mr. Frits Johansen was the collector, otherwise the names are given, and when the same species was collected also by Mr. F. Johansen, the initials F. J. have been inserted.

PTERIDOPHYTA.

POLYPODIACEAE.

Cystopteris fragilis (L.) Bernh.
Young point—Wollaston land.

Dryopteris fragrans (L.) Schott [*Aspidium fragrans* (L.) Sw.]
Port Epworth (J. R. Cox and J. J. O'Neil)—Detention harbour and Kater point, Bathurst inlet (R. M. Anderson).

EQUISETACEAE.

Equisetum arvense L.
Camden bay—Herschel island—Bernard harbour—Big falls of Tree river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

E. variegatum Schleich.
Collinson point—Bernard harbour—Taylor island, Victoria strait (J. F. Bernard).

LYCOPODIACEAE.

Lycopodium Selago L.
Camden bay—Epworth harbour, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

GYMNOSPERMAE

ABIETACEAE.

Picea canadensis (Mill.) B.S.P.
Sandstone rapids, lower Coppermine river.

ANGIOSPERMAE.

MONOCOTYLEDONEAE

GRAMINEAE.

Hierochloë pauciflora R. Br.
Collinson point—Young point.

Alopecurus alpinus Sm.
Camden bay—Icy reef—Herschel island—Cape Bathurst—Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—De Haven point, Victoria island; Taylor island, Victoria strait (J. F. Bernard).

Arctagrostis latifolia (R. Br.) Griseb. [*Colpodium latifolium* R. Br.]
Camden bay—Sadlerochit river—Icy reef—Herschel island—Young point—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill).

Calamagrostis purpurascens R. Br.
Bernard harbour.

Trisetum spicatum (L.) Richt. [*T. subspicatum* (L.) Beauv.]
Herschel island—Bernard harbour—Wollaston land (D. Jenness).

Poa glauca M. Vahl.
Herschel island—Bernard harbour—De Haven point, Victoria island (J. F. Bernard).

P. abbreviata R. Br.
Wollaston land. (F. J. and D. Jenness).

P. arctica R. Br. [*P. flexuosa* Wahlenb.]
Icy reef—Herschel island—Cape Bathurst—Bernard harbour—Wollaston land.

P. hispidula Vas. (Specimens very poor.)
Bernard harbour—Detention harbour, Bathurst inlet (R. M. Anderson.)

Arctophila effusa Lge.
Herschel island.

Dupontia Fischeri R. Br.
Martin point—Herschel island—Bernard harbour.

Glyceria (sectio *Atropis*) **vilfoidea** (Ands.) Th. Fries [*Poa phryganodes* Trin.]
Spy island—Cape Bathurst—Bernard harbour.

G. tenella Lge.
Martin point.

G. vaginata Lge.
Cape Bathurst—Taylor island, Victoria strait (J. F. Bernard).

Festuca ovina L. var. **brevifolia** (R. Br.) Hackel
Camden bay—Icy reef—Bernard harbour.

F. rubra L. var. **arenaria** Fr.
Bernard harbour—Wollaston land—Detention harbour, Bathurst inlet (R. M. Anderson).

Bromus arcticus Shear
Port Epworth (J. R. Cox and J. J. O'Neill).

Agropyrum alaskanum Scribn. et Merr.
Cape Bathurst—Wollaston land (D. Jenness)—Detention harbour, Bathurst inlet (R. M. Anderson).

Hordeum jubatum L.
Bathurst inlet (R. M. Anderson).
Hood river, Bathurst inlet (R. M. Anderson).

Elymus mollis Trin.
Camden bay—Martin point—Herschel island—Clifton point (D. Jenness)—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land.

CYPERACEAE.

Eriophorum Scheuchzeri Hoppe [*E. capitatum* Host]
Collinson point—Herschel island—Cape Bathurst—Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill).

E. vaginatum L.
East of Collinson point.

E. callithrix Cham.
Mackenzie river delta (I. O. Stringer).

E. angustifolium Roth
Camden bay—Cape Bathurst—Bernard harbour—Wollaston land (F. J. and D. Jenness).

Carex incurva Lightf.
Martin point—Icy reef—Herschel island—Bernard harbour.

C. rigida Good. [*C. saxatilis* Wahlenb.]
Camden bay—Young point—Bernard harbour—Wollaston land.

C. stans Drej. (Plate IV, figs. 1–8)
Camden bay—Sadlerochit river—Herschel island—Cape Bathurst—Kogluktualuk river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

C. subspathacea Wormskj.
Camden bay—Bernard harbour.

C. reducta Drej.
Camden bay—West of Martin point.

C. rariflora Sm.
Camden bay.

C. vaginata Tausch
Kogluktualuk or Tree river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

C. misandra R. Br.
Collinson point—Bernard harbour.

C. rupestris All.
Bernard harbour.

C. scirpoidea Michx.
Bernard harbour.

C. pulla Good. [*C. saxatilis* L.]
Bernard harbour.

C. compacta R. Br.
Sadlerochit river—Wollaston land (F. J. and D. Jenness).

JUNCACEAE.

Juncus arcticus Willd.
Bernard harbour.

J. Haenkii Mey.
Sadlerochit river—Hood river, Bathurst inlet (R. M. Anderson).

J. biglumis L.
Bernard harbour.

J. triglumis L.
Bernard harbour.

Luzula spicata DC.
Camden bay—Cape Bathurst.

L. hyperborea R. Br.
Herschel island.

L. nivalis (Laest.) Beurl.
Camden bay.

LILIACEAE.

Lloydia serotina (L.) Reich.
Camden bay—Herschel island.

COLCHICACEAE.

Tofieldia palustris Huds. [*T. borealis* Wahlenb.]
Bernard harbour.

DICOTYLEDONEAE

SALICACEAE.

Salix anglorum Cham.
Cape Bathurst—Young point—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Sandstone rapid, Coppermine river—Cape Barrow and Bathurst inlet (R. M. Anderson).

S. reticulata L.
Camden bay—Collinson point—Herschel island—Young point—Bernard harbour—Epworth harbour (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness)—Cape Barrow (R. M. Anderson)—Taylor island, Victoria strait (J. F. Bernard).

S. fullertonensis C. Schn.
Kater point and Arctic sound, Bathurst inlet (R. M. Anderson).

S. niphoclada Rydb.
Icy reef.

S. ovalifolia Trautv.
West of Martin point.

S. ovalifolia Trautv. var. **camdensis** C. Schn.
Camden bay—Collinson point—West of Martin point.

S. phlebophylla And.
Sadlerochit river.

S. pulchra Cham.
Camden bay—Collinson point—Herschel island—Bernard harbour.

S. rotundifolia Trautv.
Camden bay—Collinson point.

S. Richardsonii Hook.
Camden bay—Sadlerochit river—Herschell island—Croker river, Dolphin and Union strait (R. M. Anderson)—Clay banks below Bloody falls on east side of Coppermine river—Wollaston land, on sand flats.

Populus tremuloides Michx.
Arctic Alaska. Hulahula river—Near Sandstone rapid, Coppermine river, (R. M. Anderson).

BETULACEAE.

Betula glandulosa Michx.
Demarcation point—Herschel island—Bernard harbour—Lady Franklin point, Wollaston land.

POLYGONACEAE.

Polygonum viviparum L.

Camden bay—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill). Mackenzie river delta (I. O. Stringer)—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Taylor island, Victoria strait (J. F. Bernard).

P. Bistorta

Sadlerochit river—Herschel island—Mackenzie river delta (I. O. Stringer).

Rumex arcticus Trautv.

Herschel island—Mackenzie river delta (I. O. Stringer)—Tree river (J. R. Cox and J. J. O'Neill)—Arctic sound, Bathurst inlet (R. M. Anderson).

Oxyria digyna (L.) Hill

Camden bay—Herschel island—Cape Bathurst—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Taylor island, Victoria strait (J. F. Bernard).

CARYOPHYLLACEAE.

Silene acaulis L.

Camden bay—Martin point—Herschel island—Young point—Bernard harbour—South coast of Coronation gulf (R. M. Anderson, J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness).

Lychnis apetala L.

Camden bay—Icy reef—Herschel island (I. O. Stringer)—Cape Bathurst—Young point—Bernard harbour—Wollaston land—South coast of Coronation gulf and Bathurst inlet (J. R. Cox, J. J. O'Neill and R. M. Anderson)—DeHaven point—Victoria island (J. F. Bernard).

L. apetala L. var. **arctica** Th. Fr.

Wollaston land (D. Jenness).

L. affinis R. Br. (Plate VII, fig. 2.)

Herschel island—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Cape Barrow, Bathurst inlet (R. M. Anderson)—Taylor island, Victoria strait (J. F. Bernard).

L. Taylorae Robins.

Mackenzie river delta (I. O. Stringer).

Stellaria longipes Goldie var. **Edwardsii** Wats.

Camden bay—Martin point—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Cape Barrow (R. M. Anderson).

S. humifusa Rottb.

Camden bay—Spy island—Martin point—Bernard harbour—Taylor island, Victoria strait (J. F. Bernard).

Cerastium alpinum L.

Camden bay—Cape Bathurst—Bernard harbour.

C. maximum L.

Cape Krusenstern (J. R. Cox).

Halianthus peploides (L.) Fr.

Camden bay—Martin point—Herschel island (I. O. Stringer)—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill).

Alsine arctica (Stev.) Fenzl.
Camden bay—Sadlerochit river—Herschel island.

A. verna Bartl. var. **rubella** (Wahlenb.) Lge.
Bernard harbour.

Merckia physodes Fisch.
Mackenzie river delta (I. O. Stringer).

RANUNCULACEAE.

Caltha palustris L. forma **radicans** (Forst.) Hartm.
Camden bay—Herschel island—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Port Epworth harbour (J. R. Cox and J. J. O'Neill).

Delphinium scopulorum Gr. var. **glaucum** Gr.
Herschel island and Mackenzie river delta (I. O. Stringer).

Aconitum delphiniifolium DC.
Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer).

Anemone Richardsonii Hook.
Herschel island (I. O. Stringer)—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Tree river (J. R. Cox and J. J. O'Neill)—Arctic sound, Bathurst inlet (R. M. Anderson).

A. parviflora Michx. (Plate I, fig. 1; Plate VI, figs. 1-3)
Collinson point—Herschel island—Clifton point (H. Girling)—Mackenzie river delta (I. O. Stringer)—Bernard harbour—Port Epworth harbour (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness)—Arctic sound, south coast of Coronation gulf (R. M. Anderson).

A. Drummondii Wats.
Sadlerochit river.

Batrachium confervoides Fr.
Bernard harbour.

Ranunculus Pallasii Schl.
Camden bay.

R. Purshii Richards. (Plate VII, fig. 1)
Herschel island—Cape Bathurst.

R. Cymbalaria Pursh var. **alpina** Hook. (Plate VI, fig. 4)
Port Epworth (J. R. Cox and J. J. O'Neill).

R. hyperboreus Rottb.
Herschel island (I. O. Stringer)—Bernard harbour.

R. pygmaeus Wahlenb.
Bernard harbour.

R. lapponicus L.
Tree river (J. R. Cox and J. J. O'Neill).

R. sulphureus Soland.
Camden bay.

R. nivalis L.
Camden bay—Shingle Point (J. R. Cox and J. J. O'Neill)—Cape Bathurst.

R. affinis R. Br. (Plate V, Figs. 1-3)
Herschel island—Bernard harbour—Port Epworth harbour (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness).

R. Sabinii R. Br. (Plate V, fig. 4)
Cape Bathurst.

R. occidentalis Nutt. var. **robustus** Gray
Herschel island (I. O. Stringer)—Mackenzie river delta (I. O. Stringer).

PAPAVERACEAE.

Papaver nudicaule L. (Plate I, fig. 2)
Camden bay—Martin point—Icy reef—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Cape Bathurst—Clifton point (H. Girling)—Young point—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill)—Cape Barrow—Coronation gulf (R. M. Anderson)—Taylor island, Victoria strait (J. F. Bernard)—Findlay island (Northern party).

CRUCIFERAE.

Lesquerella arctica (Rich.) Wats.
Bernard harbour.

Cochlearia groenlandica L.
Spy island—Camden bay—Cape Bathurst—Bernard harbour—Taylor island, Victoria strait (J. F. Bernard).

Draba alpina L.
Camden bay—Herschel island and Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Clifton point (H. Girling)—Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness)—Bathurst inlet (R. M. Anderson)—Anderson bay, Victoria island (J. F. Bernard).

D. nivalis Liljebl.
Icy reef—Herschel island (I. O. Stringer)—Cape Bathurst—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness).

D. fladnizensis Wulf.
Camden bay.

D. corymbosa R. Br.
Bernard harbour.

D. hirta L.
Herschel island—Mackenzie river delta (I. O. Stringer)—Tree river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

Braya purpurascens (R. Br.) Bunge
Bernard harbour—Wollaston land (F. J. and D. Jenness).

B. alpina Sternb. et Hoppe
Wollaston land (F. J. and D. Jenness).

Eutrema Edwardsii R. Br.
Camden bay—Herschel island—Cape Bathurst—Young point—Bernard harbour.

Hesperis Pallasii (Pursh) T. et G.
Herschel island—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill)—Arctic sound, south coast of Coronation gulf (R. M. Anderson).

Cardamine digitata Richards.
Herschel island—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill).

C. pratensis L.
Camden bay—Herschel island—Cape Bathurst—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill).

Parrya macrocarpa R. Br. [*P. nudicaulis* Regel].
Camden bay—Herschel island—Bernard harbour—Wollaston land (D. Jenness).

P. arctica R. Br.
Bernard harbour.

Erysimum inconspicuum (Wats.) McMill.
Tree river (J. R. Cox and J. J. O'Neill).

Sisymbrium sophioides Fisch.
Herschel island—Bernard harbour.

SAXIFRAGACEAE.

Chrysosplenium alternifolium L. var. **tetrandrum** Lund
Herschel island—Cape Bathurst

Parnassia palustris L.
Shore of Mackenzie bay (I. O. Stringer).

P. Kotzebuei Cham. et Schl.
Herschel island (F. J. and I. O. Stringer)—Bernard harbour.

Saxifraga radiata Small [*S. exilis* Stephan; non *S. exilis* Poll.]
Herschel island.

S. rivularis L.
Camden bay—Co[illegible]rn point—Bernard harbour—De Haven point, Victoria island (J. Bernard).

S. cernua L.
Camden bay[illegible] reef—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie bay (I. O. Stringer)—Cape Bathurst—Young point—Port Epworth, [illegible]n coast of Coronation gulf (J. R. Cox and J. J. O'Neill)—Cape Barrow, Bathurst inlet (R. M. Anderson).

S. Hirculus L.
Camden bay—Herschel island (F. J. and I. O. Stringer)—Warren point and Mackenzie bay (I. O. Stringer)—Cape Bathurst—Young point—Bernard harbour—Bathurst inlet (R. M. Anderson).

S. aestivalis Fisch. et Mey.
Cape Barrow, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

S. Nelsoniana D. Don.
Camden bay—Herschel island (F. J. and I. O. Stringer)—Shingle point, (J. R. Cox and J. J. O'Neill.)

S. reflexa Hook.
Mackenzie bay (I. O. Stringer).

S. nivalis L.
Kater point, Bathurst inlet (R. M. Anderson).

S. hieraciifolia W. et K.
Camden bay—Icy reef—Herschel island.

S. decipiens Ehrh. var. **groenlandica** (L.) Lge.
Camden bay—Martin point—Sadlerochit river—Young point—Bernard harbour.

S. bronchialis L.
Tundra west of Collinson point.

S. tricuspidata Rottb.
Camden bay—Sadlerochit river—Herschel island (F. J. and I. O. Stringer)—Warren point (I. O. Stringer)—Mackenzie bay (I. O. Stringer)—Clifton point (D. Jenness)—Young point—Bernard harbour—Coppermine river—South coast of Coronation gulf—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness)—Cape Barrow, Bathurst inlet (R. M. Anderson)—De Haven point, Victoria island, (J. F. Bernard).

S. aizoides L.
Bernard harbour.

S. flagellaris Willd.
Mountains near Sadlerochit river.

S. oppositifolia L.
Camden bay—Collinson point—Icy reef—Clifton point (D. Jenness and H. Girling)—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness)—Taylor island, Victoria strait (J. F. Bernard)—Findlay island (Northern party).

CRASSULACEAE.

Sedum Rhodiola L.
Martin point.

ROSACEAE.

Dryas octopetala L.
Sadlerochit river.

D. integrifolia M. Vahl (Plate II, fig. 1)
Camden bay—Sadlerochit river—Herschel island—Mackenzie river delta (I. O. Stringer)—Warren point (I. O. Stringer)—Cape Bathurst—Young point—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Cape Barrow (R. M. Anderson)—Taylor island, Victoria strait (J. F. Bernard).

D. integrifolia M. Vahl forma **intermedia** Nathorst
Port Epworth harbour (J. R. Cox and J. J. O'Neill).

Sieversia glacialis R. Br. (Plate VIII, fig. 1)
Herschel island.

Potentilla palustris (L.) Scop.
Herschel island.

P. fruticosa L.
Sadlerochit river - Port Epworth (J. R. Cox and J. J. O'Neill).

P. pulchella R. Br.
Spy island- Martin point—Collinson point- Cape Bathurst.

P. nivea L.
Sadlerochit river -Herschel island (I. O. Stringer)—Bernard harbour - Port Epworth, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill)- Wollaston land.

P. rubricaulis Lehm.
Herschel island- Bernard harbour.

P. Vahliana Lehm.
Herschel island (I. O. Stringer) — Cape Bathurst—Bernard harbour - Wollaston land (D. Jenness).

P. emarginata Pursh
Camden bay - Clifton point (D. Jenness and H. Girling) - Port Epworth, south coast of Coronation gulf—Arctic sound (R. M. Anderson).

Rubus Chamaemorus L.
Warren point (I. O. Stringer).

Rosa acicularis Lindl.
Mackenzie river delta (I. O. Stringer).

PAPILIONACEAE.

Lupinus arcticus Wats.
Mackenzie river delta (I. O. Stringer).

L. nootkatensis Don var. **Kjellmanii** Ostf.
Camden bay - Herschel island—Shingle point (J. R. Cox and J. J. O'Neill) - Mackenzie river delta (I. O. Stringer)—Port Epworth (J. R. Cox and J. J. O'Neill).

Astragalus alpinus L.
Camden bay- Collinson point- Herschel island- Mackenzie river delta (I. O. Stringer)—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness)—Cape Barrow, Bathurst inlet (R. M. Anderson).

A. aboriginorum Richards. (Plate X, figs. 1–4)
Bernard harbour—Port Epworth harbour (J. R. Cox and J. J. O'Neill)

Phaca frigida L.
Camden bay—Herschel island—Bernard harbour.

Oxytropis campestris (L.) DC. var. **sordida** Willd.
Herschel island—Clifton point (H. Girling)—Bernard harbour—Wollaston land, (D. Jenness)—Port Epworth, south coast of Coronation gulf (J.R. Cox and J.J. O'Neill)—Cape Barrow, Bathurst inlet (R. M. Anderson).

O. foliolosa Hook.
Tree river (J. R. Cox and J. J. O'Neil).

O. Roaldi Ostf. (Plate VIII, fig. 2)
Bernard harbour—Epworth harbour (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness).

O. nigrescens (Pall.) Fisch. (Plate IX, figs. 1-3)
Camden bay—Collinson point—Martin point—Icy Reef—Herschel island, (I. O. Stringer).

O. arctobia Bunge (Plate II, fig. 2; plate IX, figs. 4-5)
Clifton point (D. Jenness)—Bernard harbour—Epworth harbour (J. R. Cox and J. J. O'Neill).

Hedysarum Mackenzii Richards.
Herschel island—Bernard harbour—Wollaston land (F. J. and D. Jenness).

H. alpinum L. var. **americanum** Michx.
Herschel island (I. O. Stringer)—Mackenzie river delta (I. O. Stringer)—Port Epworth (J. R. Cox and J. J. O'Neill)—Detention harbour (R. M. Anderson).

H. alpinum × Mackenzii
Herschel island.

Lathyrus maritimus (L.) Fr.
Shingle point (J. R. Cox and J. J. O'Neill).

EMPETRACEAE.

Empetrum nigrum L.
Demarcation point—Herschel island—Kater point, Bathurst inlet (R. M. Anderson).

OENOTHERACEAE.

Epilobium latifolium L. (Plate VII, fig. 3.)
Camden bay—Sadlerochit river—Icy reef—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Grays bay and Cape Barrow (J. R. Cox and J. J. O'Neill)—Cape Barrow, Bathurst inlet (R. M. Anderson).

HALORRHAGIDACEAE.

Hippuris vulgaris L. var. **maritima** Hartm.
Camden bay—Herschel island—Bernard harbour.

UMBELLIFERAE.

Bupleurum americanum C. et R. (Plate VII, fig. 4)
Herschel island.

Selinum cnidiifolium Turcz.
Herschel island.

PYROLACEAE.

Pyrola grandiflora. Rad. [*P. rotundifolia* var. DC.]
Camden bay—Sadlerochit river—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Port Epworth (J. R. Cox and J. J. O'Neill).

ERICACEAE.

Ledum palustre L.

Camden bay—Herschel island—Mackenzie river delta (I. O. Stringer)—Shingle point (J. R. Cox and J. J. O'Neill)—Tree river, big falls (J. R. Cox and J. J. O'Neill)—Detention harbour and Kater point, Bathurst inlet (R. M. Anderson).

L. palustre L. var. **decumbens** Ait.

Camden bay.

Rhododendron lapponicum (L.) Wahlenb.

Sadlerochit river—Bernard harbour—Coppermine river—Tree river, big falls (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness).

Loiseleuria procumbens (L.) Desv.

Port Epworth harbour (J. R. Cox and J. J. O'Neill).

Kalmia polifolia Wang. [K. *glauca* Ait.]

Cape Barrow and Detention harbour (R. M. Anderson)—Coppermine river

Cassiope tetragona (L.) Don

Camden bay—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Bernard harbour—Coppermine river—Port Epworth, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness)—Cape Barrow and Arctic sound, Bathurst inlet (R. M. Anderson).

Arctostaphylos alpina (L.) Spreng.

Herschel island—Mackenzie river delta (I. O. Stringer)—Bernard harbour—Wollaston land (D. Jenness)—Port Epworth, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill)—Kater point, Bathurst inlet (K. G. Chipman).

VACCINIACEAE.

Vaccinium caespitosum Michx.

Camden bay—Herschel island.

V. uliginosum L. forma **microphylla** Lge.

Bernard harbour—Epworth harbour (J. R. Cox and J. J. O'Neill).

V. Vitis-idaea L. var. **pumilum** Horn. (Plate XI, fig. 8)

Herschel island.

PRIMULACEAE.

Dodecatheon frigidum Cham. et Schl.

Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer).

Primula borealis Duby (Plate XI, fig. 4)

Camden bay—Herschel island (I. O. Stringer)—Cape Bathurst.

P. stricta Hornem. (Plate XI, fig. 6)

Herschel island—Warren point (I. O. Stringer)—Bernard harbour—Port Epworth, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

P. sibirica Jacq. (Plate XI, fig. 5)

Bernard harbour.

Douglasia arctica Hook.

Between Herschel island and Mackenzie river delta (I. O. Stringer).

Androsace Chamaejasme Host (Plate III, fig. 1)
Icy reef—Herschel island—Warren point (I. O. Stringer)—Cape Bathurst—Clifton point (H. Girling)—Bernard harbour—Wollaston land.

A. septentrionalis L. var. **robusta** St. John (Plate XI, fig. 7)
Bernard harbour.

PLUMBAGINACEAE.

Statice Armeria L. forma **sibirica** (Turcz.). Simm.
Mackenzie river delta (I. O. Stringer)—Bernard harbour—Mouth of Tree river (J. R. Cox and J. J. O'Neill)—Wollaston land (F.J. and D. Jenness).

GENTIANACEAE.

Gentiana arctophila Griseb. (Plate XI, fig. 1)
Herschel island—Mackenzie river delta (I. O. Stringer).

G. propinqua Richards. (Plate XI, fig. 2)
Bernard harbour.

Pleurogyne rotata Griseb.
Hood river, Bathurst inlet (R. M. Anderson).

P. carinthiaca Griseb. (Plate XI, fig. 3)
Mackenzie river delta (I. O. Stringer).—Bernard harbour.

POLEMONIACEAE.

Phlox Richardsonii Hook.
Cape Bathurst—Clifton point (H. Girling).

Polemonium coeruleum L. var. **villosum** (Rud.) Brand.
Herschel island.

P. boreale Adams
Camden bay—Sandpit west of Martin point.

BORAGINACEAE.

Myosotis silvatica Hoffm.
Herschel island—Mackenzie river delta (I. O. Stringer).

Mertensia Drummondii Don
Clifton point (H. Girling)—Wollaston land (D. Jenness).

M. maritima (L.) S. F. Gr.
Spy island—Martin point—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Bernard harbour—Grays bay, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill)—Kater point, Bathurst inlet (R. M. Anderson),

SCROPHULARIACEAE.

Castilleja pallida (L.) Kunth
Herschel island—Shingle point (J. R. Cox and J. J. O'Neil)—Mackenzie river delta (I. O. Stringer)—Bernard harbour—Tree river (J. R. Cox and J. J. O'Neill). Wollaston land (F. J. and D. Jenness)—Detention harbour, Bathurst inlet (R. M. Anderson).

Pedicularis lapponica L.
Tree river, big falls (J. R. Cox and J. J. O'Neill).

P. verticillata L.

Herschel island.

P. hirsuta L.

Camden bay—Tree river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

P. sudetica Willd.

Camden bay—Herschel island—Warren point (I. O. Stringer)—Cape Bathurst—Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Cape Barrow, Bathurst inlet (R. M. Anderson).

P. arctica R. Br.

Camden bay—Shingle point (J. R. Cox and J. J. O'Neill)—Cape Bathurst—Bernard harbour.

P. lanata Cham. et Schl. (Plate III, fig. 2)

Camden bay—Clifton point (H. Girling)—Bernard harbour—Wollaston land (D. Jenness)—Tree river (J. R. Cox and J. J. O'Neill).

P. capitata Adams

Camden bay—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Bernard harbour—Tree river, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill)—Wollaston land (F. J. and D. Jenness)—Cape Barrow, Bathurst inlet (R. M. Anderson).

LENTIBULARIACEAE.

Pinguicula vulgaris L.

Port Epworth (J. R. Cox and J. J. O'Neill).

SELAGINACEAE.

Lagotis glauca Gaertn. var. **Stelleri** Cham. et Schl.

Camden bay—Herschel island—Mackenzie bay (I. O. Stringer).

PLANTAGINACEAE.

Plantago lanceolata L. var.

Bernard harbour—Wollaston land.

VALERIANACEAE.

Valeriana capitata Pall.

Herschel island—Shingle point (J. R. Cox and J. J. O'Neill).

CAMPANULACEAE.

Campanula uniflora L.

Bernard harbour—Port Epworth harbour (J. R. Cox and J. J. O'Neill).

COMPOSITAE.

Aster sibiricus L.

Sadlerochit river—Herschel island (I. O. Stringer)—Mackenzie river delta (I. O. Stringer)—Wollaston land (F. J. and D. Jenness).

Erigeron uniflorus L.

Herschel island—Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Bernard harbour—Wollaston land (F. J. and D. Jenness)—Kanuyuk island, Bathurst inlet (R. M. Anderson).

E. alpinus L.
Port Epworth (J. R. Cox and J. J. O'Neill).

E. grandiflorus Hook.
Herschel island.

E. compositus Pursh
Mackenzie river delta (I. O. Stringer)—Clifton point (H. Girling)—Wollaston land—Bernard harbour.

Antennaria alpina (L.) R. Br. (Plate XII, fig. 2)
Bernard harbour.

A. candida Greene
Bernard harbour.

Achillea borealis Bong.
Herschel island—Arctic sound, Bathurst inlet (R. M. Anderson).

Matricaria inodora L. var. **grandiflora** (Hook.) Ostf.
Herschel island—Hood river, Bathurst inlet (R. M. Anderson).

Chrysanthemum integrifolium Rich. (Plate XII, fig. 1)
Young point—Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness).

C. arcticum L.
Shingle point (J. R. Cox and J. J. O'Neill).

Artemisia Richardsoniana Bess. (Plate XIII, figs. 1-5)
Bernard harbour.

A. hyperborea Rydb. (Plate XIII, figs. 2, 4)
Bernard Harbour.

Artemisia hyperborea Rydb. (North Am. Fl. Vol. 34, Part 3. New York, 1916, p. 262).

A. arctica Bess. Not *A. arctica* Less.

"A perennial, with a cespitose caudex or rootstock; stems 5–10 cm. high, finely white-tomentose, decumbent at the base; basal leaves numerous, 2–4 cm. long, finely silvery tomentose, twice pinnatifid into approximate linear divisions; primary divisions 5–7, the secondary ones mostly 3–5; stem leaves smaller, less divided, the primary divisions often entire; heads mostly conglomerate in a short spike at the end of the stems and a few remote solitary ones in the upper axils; involucre depressed-hemispheric, about 5 mm. high and 6 mm. broad; bracts 10–12, broadly oval or obovate, white tomentose on the back, with broad dark brown erose scarious margins; ray flowers 10 or more; corollas 2 mm. long, slightly glandular-granuliferous, 3–4 lobed; style slightly exserted; branches oblong; disk-flowers 20–30; corollas yellow, deeply-campanulate, slightly villous at the apex, 2, 5 mm. long."

[*Artemisia hyperborea* Rydb. (l. c. supra). Radix multiceps, caulibus subterraneis adscendentibus; caulis humilis, gracilis, parce foliatus, albo-pubescens; folia rosulata, bipinnatifida, laciniis linearibus, canescentibus; anthela spicata, versus basin interrupta; calathiis majusculis, subglobosis, patentibus; involucri squamae obovatae, albo-tomentosae, marginibus fuscis; corollae radii parce glandulosae; cor. disci flavescentes, paulo versus apicem villosae.]

T.H

A. comata Rydb. (Plate XIII, figs. 3, 6)

Camden bay—Collinson point—Martin point—Herschel island.

Artemisia comata Rydb. (North Am. Flora, Vol. 34, Part 3. New York, 1916, p. 263).

"A low perennial, with a cespitose caudex or rootstock; stems 1–1, 5 dm. high, decumbent at the base, sparingly villous below, densely so in the inflorescence, with lon white hairs; lower leaves crowded, 2–5 cm. long, mostly twice pinnatifid into linear-lanceolate, acute divisions, sparingly long-hairy or in age glabrate; stem-leaves several, less divided, the upper simply pinnatifid into linear divisions; inflorescence dense, spike-like, somewhat interrupted below; individual peduncles 1–5 mm. long; heads nodding; involucre depressed hemispheric, 5 mm. high, 6–7 mm. broad; bracts about 12, glabrous, oblong-ovate, obtuse, dark-greenish brown, with very dark purplish-brown, almost black, erose, scarious margins; ray-flowers 12–15; corollas 2 mm. long, slightly glandular-granuliferous, 3-lobed; disk-flowers 30–40; corollas deeply funnelform, nearly 3 mm. long, tinged with purple, slightly villous at the apex."

[*Artemisia comata* Rydb. (l. c. supra): Rhizoma stoloniferum; caulis humilis, dense foliatus, pilosus; folia radicalia dense rosulata, bipinnatifida, laciniis lineari-lanceolatis, parce pilosis; anthela simplex, racemosa, calathiis majusculis, subglobosis, nutantibus; squamae involucri glabriusculae, ovato-oblongae, obtusae, fuscae, marginibus nigricantibus, scariosis; corollae radii paullo glandulosae; cor. disci purpurascentes, parce versus apicem pil[illegible]ae.]

A. vulgaris L. var. **Tilesii** Ledeb.

Herschel island—Coppermine river—Tree river (J. R Cox and J. J. O'Neill)—Hood river, Bathurst inlet (R. M. Anderson).

Petasites frigida (L.) Fr.

Camden bay—Sadlerochit river—Herschel island—Shingle point and Tree river (J. R. Cox and J. J. O'Neill).

Arnica alpina (L.) Olin

Bernard harbour—Port Epworth (J. R. Cox and J. J. O'Neill)—Wollaston land (D. Jenness)—Cape Barrow and Arctic sound, Bathurst inlet (R. M. Anderson).

Senecio atr purpureus (Ledeb.) Wight var. **subdiscoideus** Greenm.

Collinson point—Shingle point (J. R. Cox and J. J. O'Neill)—"Rays long and relatively narrow, achenes hirtellous."

S. frigidus Less.

Shingle point (J. J. O'Neill and J. R. Cox)—Herschel island—Bernard harbour (F. J.)—Cape Barrow, Bathurst inlet (R. M. Anderson).

S. frigidus Less., forma **Shraderi** Greenm.

Cape Barrow, Bathurst inlet (R. M. Anderson).

S. palustris (L.) Hook.

Herschel island.

S. palustris (L.) Hook. var. **congestus** (DC.) Hook.

Camden bay—Herschel island (F. J. and I. O. Stringer)—Young point, Dolphin and Union strait, Bernard harbour—Wollaston land (D. Jenness)—Cape Krusenstern (Dr. J. Rae)—Arctic sound, Bathurst inlet (R. M. Anderson).—Dubawnt river (J. W. Tyrrell).

S. resedifolius Less.

Herschel island—Mackenzie river delta (I. O. Stringer).

S. lugens Richards.

Mackenzie river delta (I. O. Stringer)—Cape Bathurst—Bernard harbour.

Saussurea angustifolia DC.

Collinson point—Sadlerochit river—Herschel island—Shingle point (J. R. Cox and J. J. O'Neill)—Kater point, Bathurst inlet (R. M. Anderson).

Taraxacum lyratum (Ledeb.) DC.

Camden bay—Cape Bathurst—Bernard harbour—Wollaston land (D. Jenness).

T. ceratophorum (Ledeb.) DC.

Herschel island—Clifton point (H. Girling)—Bernard harbour—Cape Barrow, south coast of Coronation gulf (J. R. Cox and J. J. O'Neill).

Crepis nana Rich. [*Youngia pygmaea* Ledeb.] (Plate XII, fig. 3)

Icy reef—Wollaston land (D. Jenness)—Kanuyuk island, Bathurst inlet (R. M. Anderson).

According to this enumeration 230 species of vascular plants are now known to occur on the arctic shore between point Barrow and Bathurst inlet, and they represent 40 families, distributed as follows: Pteridophyta 3, Gymnospermae 1, Monocotyledones 5, and Dicotyledones 30. Of these the Compositae are represented by 23 species, the Gramineae by 22, the Ranunculaceae by 19, the Cruciferae and Saxifragaceae each by 18, the Cyperaceae by 16, the Salicaceae, Caryophyllaceae, and Papilionaceae each by 13, the Rosaceae by 12, the Scrophulariaceae by 8, the Juncaceae by 7, etc.

With respect to the genera the largest is *Saxifraga* with 15 species; then follow *Carex*, *Salix* and *Ranunculus* each with 12, *Pedicularis* with 7, *Draba* with 5, etc.

Compared with the flora of the Archipelago as given by Simmons (Phytogeography of Arctic American Archipelago), there is a marked difference. According to Simmon's paper the families richest in species are: Gramineae, Cyperaeae, Cruciferae, Compositae, Caryophyllaceae, and Saxifragaceae. The actual figures are: Gramineae 30 species, Cyperaceae 22 species, Cruciferae and Compositae 16 species, Caryophyllaceae 15 species, and Saxifragaceae 13 species.

In Greenland, on the other hand, the Cyperaceae (*Carex*) are better represented than the Gramineae; then follow Caryophyllaceae, and after these the Cruciferae.

On the west-coast of Alaska the Gramineae are represented by 104 species (*Poa* 18 sp.),[1] after these follow Cyperaceae 92 species (*Carex* 82 sp.)[2], Compositae 55 species, Cruciferae 34 species, Ericaceae 32 species, Rosaceae 30 species, Saxifragaceae 29 species (*Saxifraga* 25 species), Caryophyllaceae and Ranunculaceae 25 species, *Salix* 23 species,[3] Leguminosae 13 species, etc.

With exception of the Gramineae, *Carex* and *Salix*, the number of species has been given according to Turner: Natural history of Alaska (l.c.), but this work was published in the year 1886, and several additions having been made during recent years, notably by Dr. Walter H. Evans (1897–1898), Mr. F. H. Walpole (1901), the Harriman Expedition (1899), and others, however, so far unpublished, the list as given by Turner will undoubtedly be increased very considerably.

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[1] Scribner and Merrill, Grasses of Alaska. Contr. U. S. Nat. Herb. Washington, 1910.
[2] Holm, Th. Carex in North West America. Bot. Centralbl. 22. 1907.
[3] Coville, F. V. Willows of Alaska. Proceed. Acad. Sci., III 1901.

The sequence of the families according to the number of species thus shows that, in the Arctic archipelago, in Greenland as well as on the west coast of Alaska, the Gramineae and Cyperaceae are the families which are richest in species, while in the region explored by the expedition the Compositae and the Gramineae are the best represented, the Cyperaceae being inferior to the Ranunculaceae, Cruciferae and Saxifragaceae. It is true that many of the arctic Carices are quite inconspicuous and very difficult to separate in the field; thus the possibility of overlooking several of these would seem quite natural, and this might explain the apparent scarcity of species as compared with their distribution in other regions. But the fact that the species collected are represented by relatively small specimens seems to show that the *Carex*-vegetation on the north coast is generally poor and very uniform. Judging from the excellent manner in which all the botanical specimens were collected, there is little reason to believe that the scantiness of the material of the genus *Carex* is merely due to an oversight. The large number of Compositae, and their prevalence on the north coast seems quite natural, when we compare the representation of this family in the Arctic archipelago and on the west coast of Alaska because this family is, as we know, extraordinarily well exemplified on this continent. For instance, according to Gray's New Manual of Botany, covering the central and northeastern United States and adjacent Canada, the number of species of Compositae aggregates about 512, while Gramineae numbers about 360. In the former family the genus *Aster* comprises 59 species, *Solidago* 56 species, *Helianthus* 24 species, *Senecio* 18 species, and *Artemisia* 15 species.

And Howell, in his Flora of Northwest America, enumerates from North of California, West of Utah, and South of British Columbia, 422 species of Compositae, and of Gramineae about 270.

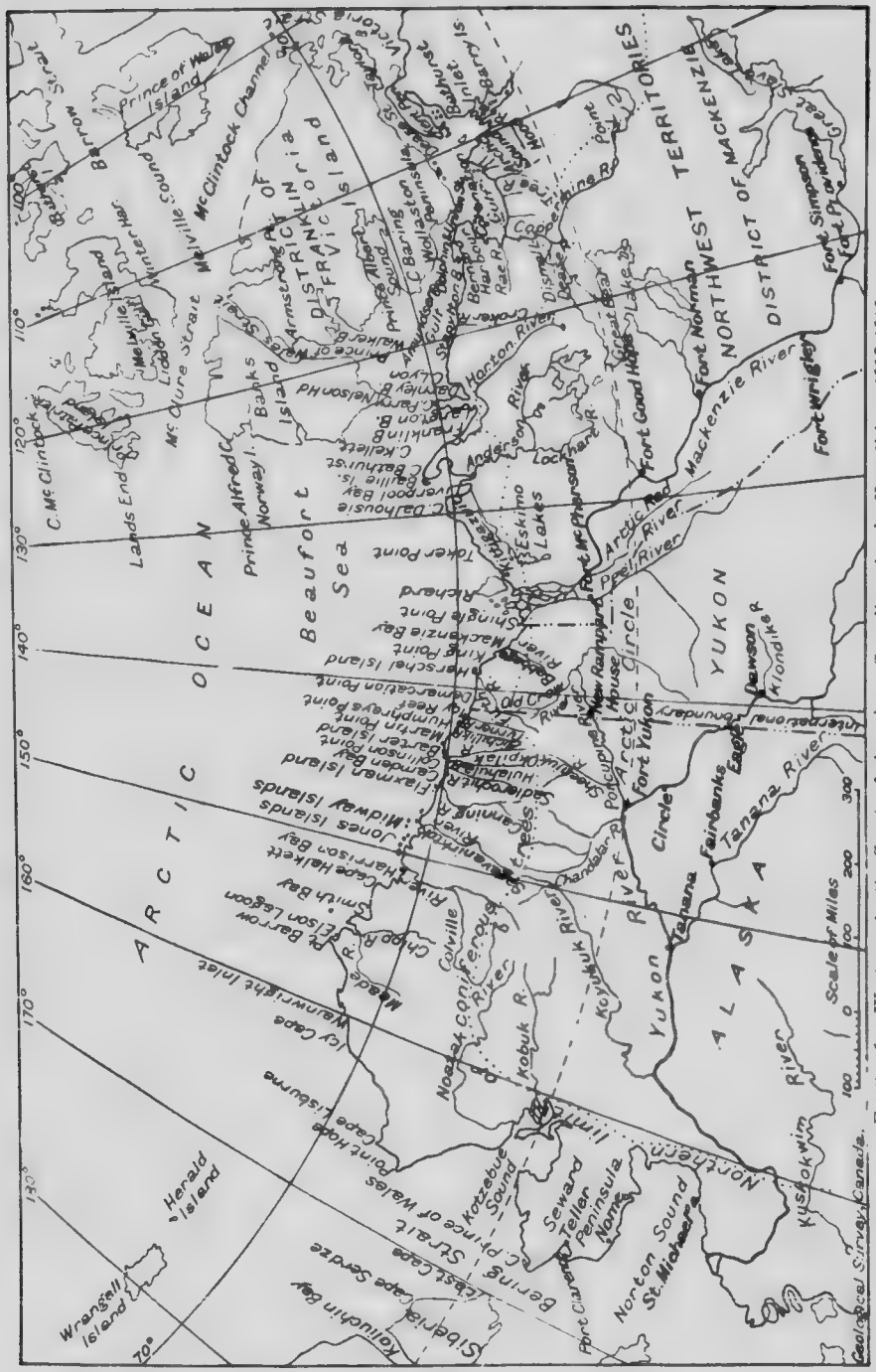

FIGURE 1. Western Arctic Coast of America; Canadian Arctic Expedition, 1913-1918.

PLATE No. I.

Fig. 1. *Anemone parviflora* Michx. In bloom at Bernard harbour. July 3, 1916. (F. Johansen).

Fig. 2. *Papaver nudicaule* L. Bernard harbour. July 23, 1915. (G. H. Wilkins)

PLATE No. II.

Fig. 1. *Dryas integrifolia* M. Vahl. Bernard harbour, July 12, 1915. Arctiid moth *Hyphoraia festiva* Bork. in foreground. (G. H. Wilkins)

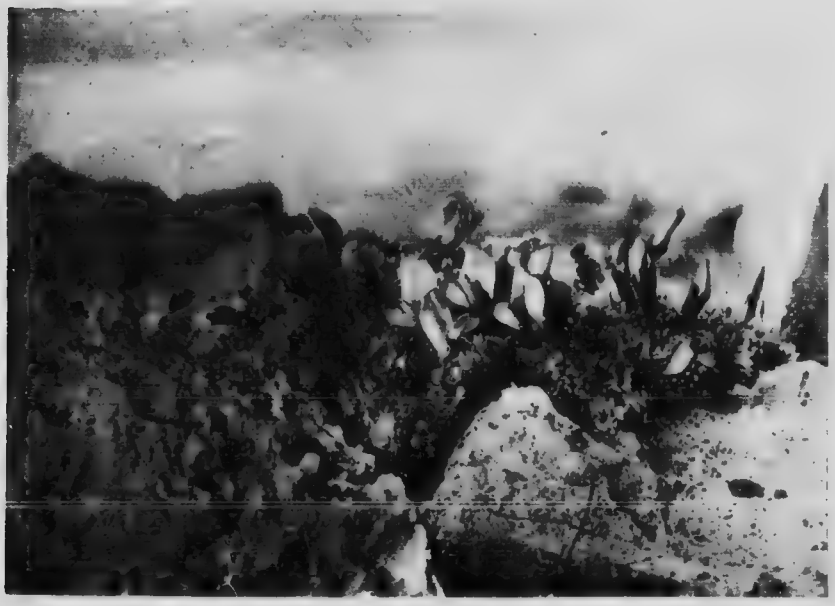

Fig. 2. *Oxytropis arctobia* Bunge. Bernard harbour, July , 1915. (G. H. Wilkins)

PLATE No. III.

Fig. 1. *Androsace Chamaejasme* Host. Bernard harbour. July 8, 1915. (G. H. Wilkins)

Fig. 2. *Pedicularis lanata* Cham. et Schl. Bernard harbour. July, 1915. (G. H. Wilkins)

PLATE IV.

Fig. 1. *Carex stans* Drej. Herschel island; natural size.
Fig. 2. Scale of the staminate spike; enlarged.
Fig. 3. Scale of the pistillate spike; enlarged.
Fig. 4. The perigynium; enlarged.
Fig. 5. Same species. Jacobshavn, west coast of Greenland; natural size.
Fig. 6. Scale of the pistillate spike; enlarged.
Figs. 7–8. Two perigynia with two and three stigmata; enlarged.

Theo. Holm del.

PLATE No. IV.

PLATE V.

Fig. 1. *Ranunculus affinis* R. Br.; specimen from Bernard harbour; natural size.
Fig. 2. Same species; a basal leaf of a specimen from same locality; natural size.
Fig. 3. Same species; an achene of a specimen from Port Epworth harbour; enlarged.
Fig. 4. *R. Sabinii* R. Br., from Cape Bathurst; natural size.

Theo. Holm del.

Plate No. V.

PLATE VI.

Fig. 1. *Anemone parviflora* Michx., flowering specimen. Camden bay; natural size.
Fig. 2. Same species in fruit. Bernard harbour, Dolphin and Union strait; natural siz
Fig. 3. Same species, a leafy shoot. (Same place). Natural size.
Fig. 4. *Ranunculus Cymbalaria* Pursh v. *alpina* Hook. Port Epworth; natural size.

Theo. Holm del.

Plate No. VI.

ral size.
natural size.

al size.

PLATE VII.

Fig. 1. *Ranunculus Purshii* Richards. Herschel island; natural size.
Fig. 2. *Lychnis affinis* Vahl. Bernard harbour; natural size.
Fig. 3. *Epilobium latifolium* L. Bernard harbour; natural size.
Fig. 4. *Bupleurum americanum* C. et R. Herschel island; natural size.

Theo. Holm del.

PLATE NO. VII.

PLATE VIII.

Fig. 1. *Sieversia glacialis* R. Br. Herschel island; natural size.
Fig. 2. *Oxytropis Rouldi* Ostf. Bernard harbour; natural size.

Theo. Holm del.

PLATE NO. VIII.

PLATE IX.

Fig. 1. *Oxytropis nigrescens* (Pall.) Fisch. Camden bay; natural size.
Fig. 2. Same species, the inflorescence; natural size.
Fig. 3. Same species, the fruit; natural size.
Fig. 4. *Oxytropis arctobia* Bge. Bernard harbour; natural size.
Fig. 5. Same species, a flowering shoot; natural size.

Theo. Holm del.

PLATE NO. IX.

PLATE X.

Fig. 1. *Astragalus aboriginorum* Richards. Bernard harbour; natural size.
Fig. 2. Same species. South coast of Coronation gulf; natural size.
Fig. 3. Same species, the flower; enlarged.
Fig. 4. Same species, fruiting raceme; natural size.

Theo. Holm del.

PLATE NO. X

PLATE XI.

Fig. 1. *Gentiana arctophila* Griseb. Herschel island; natural size.
Fig. 2. *Gentiana propinqua* Richards. Bernard harbour; natural size.
Fig. 3. *Pleurogyne carinthiaca* Griseb. Bernard harbour; natural size.
Fig. 4. *Primula borealis* Duby. Cape Bathurst; natural size.
Fig. 5. *Primula sibirica* Jacq. Bernard harbour; natural size.
Fig. 6. *Primula stricta* Hornem. South coast of Coronation gulf; natural size.
Fig. 7. *Androsace septentrionalis* L. var. *robusta* St. John. Bernard Harbour; natural size.
Fig. 8. *Vaccinium Vitis-idæa* L. var. *pumilum* Hornem. Herschel island; natural size.

Theo. Holm del.

Plate No. XI.

PLATE XII.

Fig. 1. *Chrysanthemum integrifolium* Rich. Bernard harbour; natural size.
Fig. 2. *Antennaria alpina* (L.) R. Br. Bernard harbour; natural size.
Fig. 3. *Crepis nana* Rich. Bathurst inlet; natural size.

Theo. Holm del.

Plate No. XII.

PLATE XIII.

Fig. 1. *Artemisia Richardsoniana* Bess. Bernard harbour; natural size.
Fig. 2. *Artemisia hyperborea* Rydb. Bernard harbour; natural size.
Fig. 3. *Artemisia comata* Rydb. Camden bay; natural size.
Fig. 4. Leaf of *Artemisia hyperborea*; twice natural size.
Fig. 5. Leaf of *Artemisia Richardsoniana*; twice natural size.
Fig. 6. Leaf of *Artemisia comata*; twice natural size.

Theo. Holm del.

PLATE No. XIII.

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